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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/893,938	06/27/2001	Raouf Botros	SDP273PA	6293

1333 7590 12/09/2004

PATENT LEGAL STAFF  
EASTMAN KODAK COMPANY  
343 STATE STREET  
ROCHESTER, NY 14650-2201

EXAMINER
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SHOSHO, CALLIE E

ART UNIT	PAPER NUMBER
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1714

DATE MAILED: 12/09/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/893,938

Applicant(s)

BOTROS ET AL.

Examiner

Callie E. Shosho

Art Unit

1714

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 18 October 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1,5,8,9,12,13 and 17-19 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,5,8,9,12,13 and 17-19 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

**DETAILED ACTION**

**Continued Examination Under 37 CFR 1.114**

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 10/18/04 has been entered.

2. All outstanding rejections are overcome by applicants' amendment filed 10/18/04.

**Claim Rejections - 35 USC § 112**

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claims 1, 5, 8-9, 12-13, and 17-19 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 1 recites that the pH modifier is "adapted to maintain a pH on the printable porous substrate between 8.8 and 9.1 while the thickening additive is "adapted to provide a viscosity ranging from about 50 cPs to about 1000 cPs". The scope of the claim is confusing because it is

not clear what is meant by "adapted" or how the pH modifier and thickening must be adapted to maintain the pH and provide viscosity as presently claimed. Clarification is requested.

**Claim Rejections - 35 USC § 103**

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

6. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

7. Claims 1, 5, 9, 12-13, and 17-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Botros (U.S. 6,280,512) in view of Moffatt et al. (U.S. 6,323,257).

Attention is drawn to example 7 of Botros that discloses ink comprising 3% dimethylaminoethanol (DMAE), 1.6% ethoxylated polyethyleneimine (EPI), 0.6% ammonium sulfate, 0.05% surfactant, and 0.1% biocide. Example 6 discloses ink identical to that of example 7 with the exception that the ink comprises 0.4% ammonium sulfate and 2% dimethylaminoethanol. Further, col.2, lines 34-36 of Botros disclose that the ink further contains lower aliphatic alcohol.

The difference between Botros and the present claimed invention is the requirement in the claims of thickener.

Moffatt et al., which is drawn to ink jet ink, disclose the use of up to 3% guar gum in order to improve optical density and print quality of the ink (col.17, lines 27-31 and 34).

Given that Botros in combination with Moffatt et al. disclose ink identical to that presently claimed including identical type and amount of pH modifier and thickener, it is clear that the ink would intrinsically possess pH and viscosity as presently claimed.

In light of the motivation for using guar gum, i.e. thickener, disclosed by Moffatt et al. as described above, it therefore would have been obvious to one of ordinary skill in the art to use such thickener in Botros in order to produce ink with improved optical density and print quality, and thereby arrive at the claimed invention.

8. Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Botros in view of Moffatt et al. as applied to claims 1, 5, 9, 12-13, and 17-18 above, and further in view of Kashiwazaki et al. (U.S. 6,011,098).

The difference between Botros in view of Moffatt et al. and the present claimed invention is the requirement in the claims of specific amount of surfactant.

It is noted that Botros discloses the use of surfactant and that the examples of Botros disclose the use of 0.05% surfactant, which falls outside the amount presently claimed. However, on the one hand, these are but a few preferred embodiments of Botros. A fair reading of the reference as a whole discloses that there is no limitation with respect to the amount of surfactant. Further, it is well known that surfactants are used to control the surface tension of ink. It therefore would have been obvious to one of ordinary skill in the art to use surfactant in Botros in amounts, including that presently claimed, in order to produce ink with suitable surface tension, and thereby arrive at the claimed invention.

On the other hand, Kashiwazaki et al., which is drawn to ink jet inks, disclose the use of 0.01-5% surfactant in order to produce ink with specific surface tension so that the ink possess good wetting properties and therefore print properly from printer (col.8, lines 29-47).

In light of the above, it therefore would have been obvious to one of ordinary skill in the art to use 0.01-5% surfactant in Botros in order to produce ink with good wetting properties and thus good printing properties, and thereby arrive at the claimed invention.

9. Claim 19 is rejected under 35 U.S.C. 103(a) as being unpatentable over Botros in view of Moffatt et al. as applied to claims 1, 5, 9, 12-13, and 17-18 above, and further in view of Hayes (U.S. 4,150,997).

The difference between Botros in view of Moffatt et al. and the present claimed invention is the requirement in the claims of fluorescent dye.

Botros discloses the use of dyes, however, there is no disclosure of fluorescent dyes as presently claimed.

Hayes, which is drawn to ink jet inks, disclose the use of fluorescent dyes in order to improve the contrast between the writing medium and the ink (col.2, lines 14-16).

In light of the motivation for using fluorescent dye disclosed by Hayes as described above, it therefore would have been obvious to one of ordinary skill in the art to use fluorescent dye in the ink of Botros in order to improve the contrast between the writing medium and the ink, and thereby arrive at the claimed invention.

10. **NOTE:** While there is no disclosure in Botros that the composition is “for application on an ink jet printable porous substrate prior to ink jet imaging the substrate for improving the waterfastness of the ink jet image” as presently claimed, applicants attention is drawn to MPEP 2111.02 which states that “if the body of a claim fully and intrinsically sets forth all the limitations of the claimed invention, and the preamble merely states, for example, the purpose or intended use of the invention, rather than any distinct definition of any of the claimed invention’s limitations, then the preamble is not considered a limitation and is of no significance to claim construction”. Further, MPEP 2111.02 states that statements in the preamble reciting the

purpose or intended use of the claimed invention must be evaluated to determine whether the purpose or intended use results in a structural difference between the claimed invention and the prior art. Only if such structural difference exists, does the recitation serve to limit the claim. If the prior art structure is capable of performing the intended use, then it meets the claim.

It is the examiner's position that the preamble does not state any distinct definition of any of the claimed invention's limitations and further that the intended use recited in the present claims does not result in a structural difference between the presently claimed invention and the prior art composition and further that the prior art composition, which is identical to that presently claimed, is capable of performing the recited purpose or intended use.

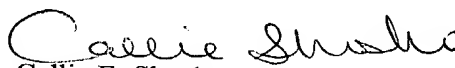
Thus, while it is noted that there is no disclosure in Botros or Moffatt et al. that the ink is "for application on an ink jet printable porous substrate prior to ink jet imaging the substrate for improving the waterfastness of the ink jet image" given that the combination of Botros with Moffatt et al. disclose ink that is identical to coating composition presently claimed, i.e. contains same types and amounts of ingredients, including ethoxylated polyethyleneimine that is used to improve waterfastness, and absent evidence to the contrary, it is the examiner's position that Botros is a relevant reference against the present claims.

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Callie E. Shosho whose telephone number is 571-272-1123. The examiner can normally be reached on Monday-Friday (6:30-4:00) Alternate Fridays Off.



If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vasu Jagannathan can be reached on 571-272-1119. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
Callie E. Shosho  
Primary Examiner  
Art Unit 1714

CS  
12/6/04